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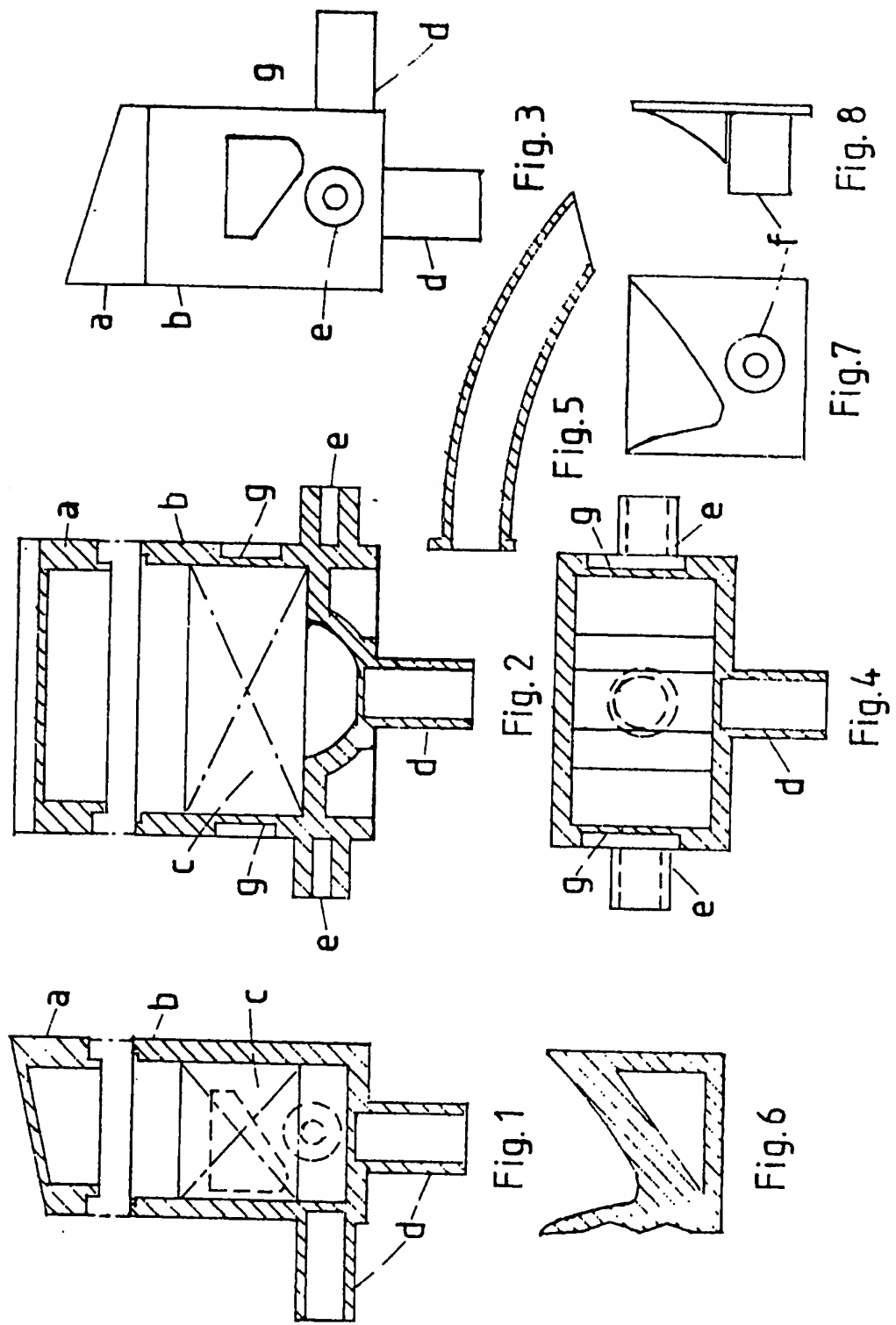
(54) **Window pane condensate collector and drain**

(57) A window pane condensate collector and drain i.e. a channel and sump specially designed to accept condensation from window panes and metal frames and drain it to the outside. The channel and sump can be fitted together and to the window pane or frame in various ways as may be required for different types of windows or frames.

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The drawing(s) originally filed was/were informal and the print here reproduced is taken from a later filed formal copy.

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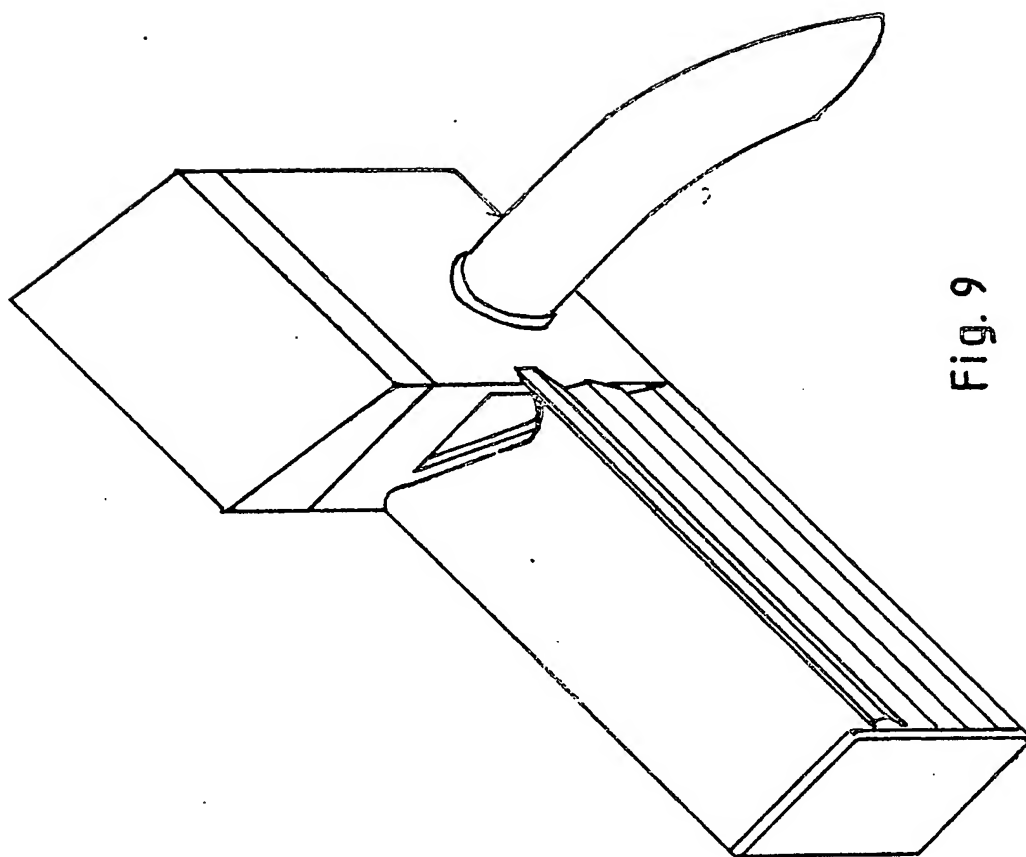


Fig. 9

## SPECIFICATION

**Window pane condensate collector and drain**

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This invention relates to window pane condensate collector and drain arrangements.

It is known to provide at the bottom of a window pane a condensate collection channel which runs parallel with the bottom of the window and which communicates with the outside via a small drain hole which passes through the window frame.

Such arrangements, which were generally provided for the passenger compartment windows of railway carriages, have the disadvantage that condensation tends to lie in the collection channel thereby to promote conditions which hasten deterioration of the window frame due to woodrot for example. The majority of domestic windows have no means whatsoever of removing the condensation other than by hand and serious condensation problems occur.

According to the present invention a window pane condensate collector (hereinafter called "channel") and drain box (hereinafter called "sump") and tube arrangement comprise an elongate channel which is adapted to be secured along the inside surface of the window pane and lower horizontal frame and or window board so as to receive condensate therefrom and being slightly inclined with respect to the longitudinal axis of the channel whereby condensation collected on the channel surface is constrained to flow along the channel to a collection sump incorporating an absorbent block which facilitates the flow of the condensate which communicates with the environment via a plastics tube through a hole in the window pane or frame.

The channel may include two sections which are serially arranged to collect condensate from adjoining parts of the window pane and which converge whereby condensate from both channels is arranged to flow through the sump positioned at the point of convergence.

The specifically designed sump with lid is fabricated of polypropylene and contains a small block of highly absorbent brick material (M.K.125) which assists collection and disposal of the condensate through a plastics tube to the outside of the window pane. The small block also prevents entry of insects, draughts and rain whilst allowing the condensate to drain away. This sump is designed with 'knock out' sections so that the tube to the outside can be fitted either to go through the glass directly or to the box at the bottom and taken through timber, metal or plastic frames where it is not possible to directly vent outside through the glass. Other 'knock out' sections enable the sump to be fitted to the left, right or in between sections of channel.

The channel is fabricated of white P.V.C. and is specially designed for timber, metal or plastic framed windows metal framed windows being particularly prone to drip condensate from their upper horizontal transoms and protruding sections and this channel being specially shaped and designed will collect these drops.

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The channel and sump are fitted to the window pane or whichever position is required with a suitable adhesive such as Dow Corning 781 or similar.

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**LEGEND TO DRAWINGS**

*Figure 1* Vertical cross section. Side view through centre of sump.

*Figure 2* Vertical cross section. Front view through centre of sump.

*Figure 3* Side elevation of sump.

*Figure 4* Horizontal cross section of sump.

*Figure 5* Vertical section through spout.

*Figure 6* Vertical cross section end view of channel.

*Figure 7* Stop end to channel inside elevation.

*Figure 8* Stop end to channel side view.

*Figure 9* Perspective view of assembled components showing the view as seen from outside the window pane to which it would be affixed. The left section being the channel and right hand section the sump with tube which fits through hole in glass to outside.

A. Lid of sump  
B. Main body of sump  
C. Absorbent brick  
D. Blind outlets (to be drilled or removed as required).

E. Positioning and fixing lugs for attaching drain channel to box (to be removed as required).

F. Fixing lug for stop end  
G. Blind access for condensate from channel to enter sump (to be removed as required)

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**CLAIMS**

1. A channel and sump whereby condensate is collected from inside the window and directed outside.

2. A channel and sump as claimed in Claim 1 which can be used on timber, metal or plastic framed windows and the condensate can be directed outside either through the window pane or through the timber, metal or plastic frame.

3. A channel and sump as claimed in Claims 1 and 2 which also collects condensate from horizontal metal frames, transoms and protrusions as well as the window pane.

4. A channel and sump as claimed in Claims 1, 2 and 3 which can be affixed to a window or frame in several positions relative to each other and to the window pane and/or frame.

5. A channel and sump as claimed in

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Claims 1,2,3 and 4 being of sturdy construction which can be used to collect and drain condensate and/or other liquid from any vertical or inclined surface.

- 5 6. A channel and sump as claimed in Claims 1,2,3,4 and 5 which can be used to collect condensation from the window frames, transoms, mullions, protrusions and panes of single and multiple glazed windows fixed or  
10 opening.

7. A channel and sump as claimed in Claims 1,2,3,4,5 and 6 which can be used to drain condensate from any glazed opening such as doors.

- 15 8. A channel as claimed in Claims 1,2,3,4,5,6 and 7 specially shaped and sized to accept condensation from various types of window frames, transoms and protrusions as well as the window pane and direct it to the  
20 sump. As shown in Figs. 6 and 9.

9. A sump as claimed in Claims 1,2,3,4,5 and 6. As shown in Fig. 6. Specially designed to hold a highly absorbent brick block to accept a plastics tube to vent horizontally  
25 through window pane or vertically through frame. To accept the channel as claimed in Claims 1,2,3,4,5,6 and 7 to be fitted on the left or right or both.

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